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UNITED STATES DEPARTMENT OF AGRICULTURE
FLOOD CONTROL COORDINATING COMMITTEE

Washington

MEMORANDUM NO. 42.

June 9, 1939

MEMORANDUM FOR FIELD FLOOD CONTROL COORDINATING COMMITTEES:
(Through B.A.E., F.S., and S.C.S.)

Subject: Cooperation with the Corps of Engineers in Appraisal Work

The Committee's memorandum dated February 14, 1939, outlined the general procedure to be followed for appraisal work for the Corps of Engineers, but a different plan of procedure was followed in handling the work for the Memphis, Vicksburg, Second New Orleans, Chicago, Little Rock, Dennison and Mobile Districts.

In order to avoid the possibility of confusion in connection with the appraisal work for the Corps of Engineers, a new administrative and fiscal procedure effective July 1, 1939, is outlined below which will supersede where there is conflict the general memorandum of February 14 (and the special memorandum of February 17, 1939, to the Field Flood Control Coordinating Committees Numbers 7, 8, 9 and 11). Under this procedure instead of the present dual arrangement, the method of handling appraisal work will be uniform throughout the United States.

1. A field representative is designated as Liaison Officer for all appraisal work between the Department of Agriculture and the Office of the District Engineer. For certain designated Districts this liaison officer will be the Soil Conservation Service Regional Conservator, and for the other Districts a Regional Official of the Bureau of Agricultural Economics will be designated. (See attached list.)

2. The office of the appraisal unit now at Vicksburg, Mississippi, will be discontinued, and such personnel as is mutually agreed on by the Bureau of Agricultural Economics and the Soil Conservation Service will be integrated with the Fort Worth and Atlanta offices of the Soil Conservation Service and the Little Rock office of the Bureau of Agricultural Economics. (The Soil Conservation Service will determine the exact date for closing the Vicksburg office, but such personnel as the Bureau of Agricultural Economics wishes to place on their payroll will be transferred before this date, if personnel action is initiated by them.)

3. When the Vicksburg appraisal office is closed, the original appraisal records at that office covering completed appraisal projects will be delivered to the District Engineer at Vicksburg. Records covering the appraisal projects under way when the Vicksburg office is closed will be moved to the office of the agency responsible for carrying out the appraisal work on the project or projects.

4. All personnel engaged in (1) parcel appraisals for acquisition of land in fee or easements and (2) gross area appraisals for furnishing estimates of probable cost of acquiring land or easements shall be employees of the Soil Conservation Service Regions, except such persons as the Soil Conservation Service may request the Forest Service or other bureaus to detail to it to assist in carrying out the work.

5. All personnel engaged in appraisal of (1) flood damages or (2) flood plain areas to determine future benefits of proposed flood control measures shall be employees of the Bureau of Agricultural Economics regions, except such persons as the Bureau of Agricultural Economics may request from the Forest Service or other bureaus to assist it in carrying out the work.

6. The Corps of Engineers, during the fiscal year 1940, will not make available working funds to finance appraisal work which they request of the Department of Agriculture. The working funds established previously for the Department of Agriculture by the Corps of Engineers will be closed out as of June 30, 1939, and any unobligated balances returned to the Corps of Engineers.

7. Appraisal work requested of the Department of Agriculture by the Corps of Engineers will, therefore, be financed from Bureau appropriations properly available for the performance of appraisal work. Reimbursement for the cost of appraisal work performed by the Department of Agriculture at the request of the Corps of Engineers shall be obtained as provided by General Accounting Office Regulations 78-Revised. Standard Form 1080 vouchers may be submitted monthly or semi-monthly in accordance with the financial needs of the Bureaus performing the work.

8. The Department of Agriculture Bureaus involved will use any qualified personnel available in complying with the request from the Corps of Engineers for appraisal work.

9. The Soil Conservation Service and the Bureau of Agricultural Economics will each issue the necessary instructions to their field officials for carrying out the administrative, technical and fiscal details in connection with the above appraisal work.

FLOOD CONTROL COORDINATING COMMITTEE

By A. C. Ringland
A. C. Ringland, Chairman.

DEPARTMENT OF AGRICULTURE

Liaison Officers between the Department of Agriculture and the
Corps of Engineers for Appraisal Work

<u>Liaison Officer</u>	<u>Engineer District</u>	
Dr. John P. Jones Regional Conservator Soil Conservation Service Upper Darby, Pennsylvania	Boston Providence New York Philadelphia	Binghamton Baltimore Buffalo Pittsburgh
Dr. T. S. Buie Regional Conservator Soil Conservation Service Atlanta, Georgia	Washington Norfolk Wilmington Charleston	Savannah Jacksonville Mobile
Mr. J. S. Cutler Regional Conservator Soil Conservation Service Dayton, Ohio.	Huntington Cincinnati	Louisville Nashville
Mr. R. H. Musser Regional Conservator Soil Conservation Service 4650 No. Port Washington Rd. Milwaukee, Wisconsin	St. Louis Chicago Milwaukee	Rock Island St. Paul Duluth
Mr. Dean Blackburn Regional Staff Officer Bureau of Agricultural Economics Donaghey Trust Building Little Rock, Arkansas	Vicksburg Memphis Little Rock 1st and 2nd New Orleans	Dennison Conchas
Mr. L. P. Merrill Regional Conservator Soil Conservation Service Fort Worth, Texas	Galveston	
Mr. A. E. McClymonds Regional Conservator Soil Conservation Service Terminal Building Lincoln, Nebraska	Kansas City Omaha Ft. Peck	
Mr. H. E. Solby Regional Staff Officer Bureaus of Agricultural Economics 222 Mercantile Building Berkeley, California.	Los Angeles Sacramento San Francisco	Benneville Portland Seattle

UNITED STATES DEPARTMENT OF AGRICULTURE
FLOOD CONTROL COORDINATING COMMITTEE
Washington

July 12, 1939

MEMORANDUM NO. 43

MEMORANDUM FOR FIELD FLOOD CONTROL COORDINATING COMMITTEES:
(Through B.A.E., F.S. and S.C.S.)

Subject: Shipments of infiltration apparatus.

By July 15 all units of the 24 infiltrometers will be ready for shipment at our expense. Shipping addresses are as shown on the attached list.

Instructions on their use prepared by the special committee which has had the matter in hand will be sent you within the next few days.

It is realized that it may now be too late to use the apparatus on some of the current surveys nearing completion, but it is anticipated that the new survey program soon to be released will permit the field to work out their best distribution and also to submit requests for additional equipment where the increased demands of new surveys warrants.

FLOOD CONTROL COORDINATING COMMITTEE

BY

Arthur C. Ringland
Arthur C. Ringland, Chairman.

Attachment

UNITED STATES DEPARTMENT OF AGRICULTURE
FLOOD CONTROL COORDINATING COMMITTEE

Washington

Attachment to
Memorandum No. 43,
July 12, 1939

Shipping Instructions

Packing and shipping the infiltrometer shall be by units and each package of unit 1 shall be marked "Unit 1", unit 2 marked "Unit 2" etc. Each unit shall consist of the following equipment:

Bid Item No.	Article	Quantity
1	Pump outfit	1
2	Plot equipment	6
2	Rain pan with drain pipe	1
3	Runoff collector tank	1
4	Sprinkler head assembly	1
5	Pressure line assembly	1
6	Point gage	1
7	Windbreaker frame	1
8	Covers for use between runs	6
	Covers for use during runs	1
	Covers for use windbreaker runs	1

<u>No. of Units</u>	<u>Shipping Address</u>
17 & 18	Arnold H. Bean Trinity Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Fort Worth, Texas.
19 & 20	William F. Simpson Muskingum Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Mt. Vernon, Ohio.
21 & 22	Whitewater Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Rochester, Minnesota.

Shipping addresses for each unit are as follows:

<u>No. of Units</u>	<u>Shipping Address</u>
(1 & 2 (3 & 4 (23 & 24	Stevens Flood Control Survey Soil Conservation Service Upper Darby, Pa.
5 & 6	Mark M. Lehrbas Tallahatchie Flood Control Survey U. S. Department of Agriculture Oxford, Mississippi.
7 & 8	George W. Taylor Washita Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Chickasha, Oklahoma.
9	W. L. Cowan Fountain Creek Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Colorado Springs, Colorado.
10	Charles A. Connaughton Rocky Mountain Forest and Range Experiment Station, U.S. Dept. of Agr. Fort Collins, Colorado
11 & 12	Hugh Cassidy (Upper Gila Flood Control Survey) Southwestern Forest and Range Experiment Station U. S. Department of Agriculture Tucson, Arizona.
13 & 14	Arthur Fife Rio Puerco Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Albuquerque, New Mexico
15 & 16	James E. Gates Coosa Flood Control Survey Soil Conservation Service U. S. Department of Agriculture Cartersville, Georgia.

UNITED STATES DEPARTMENT OF AGRICULTURE
FLOOD CONTROL COORDINATING COMMITTEE
Washington

July 26, 1939

MEMORANDUM NO. 44

MEMORANDUM FOR FIELD FLOOD CONTROL COORDINATING COMMITTEES
(Through B.A.E., F.S., and S.C.S.)

Subject: Procedure for Initiation and Conduct of Surveys

Experience gained in the conduct of the survey program during the past year and comments received from various field personnel indicate that there is need more clearly to define the procedure in initiating and undertaking new surveys. The purpose of this memorandum is to outline a more orderly basis for the conduct of surveys by indicating the types of information which should be obtained during the early stages of the survey prior to consideration of the remedial program itself. You will note that three distinct steps are prescribed, namely; (1) Preparation of Survey Work Outline, (2) Basic Investigations, and (3) Formulation and Evaluation of Remedial Program. Those steps will insure a more purposeful and economical procedure.

1. Preparation of Survey Work Outline.

Present instructions (memoranda of February 9, April 12 and April 21, respectively) call for the submission of a survey work outline as a supplement to the preliminary examination report. This requirement still applies. It is recognized, however, that such an outline is necessarily of a very general nature. For this reason, it is desired that upon authorization of a survey a more detailed survey work outline be prepared. This should be done on the basis of review of the outline submitted with the preliminary examination report and such further studies as are necessary to indicate survey requirements more specifically.

Eventually the Committee will send to the field the form which the survey work outline should follow. Meanwhile you should proceed at once with the preparation of a work outline in accordance with these and previous instructions. The outlines submitted to Washington should at least include the following items:

- (a) Designation of critical flood and silt source or other areas requiring most attention in the survey.

- (b) Designation of areas for which aerial photographs are needed (indicate whether index mosaics or contact prints, or both are wanted, and desired scales).
- (c) Outline of types and sequence of work to be done on the survey.
- (d) Provisions to be made for meeting deficiencies in basic data listed under (2) below, including expected installations and cooperative arrangements to be made with other agencies.
- (e) Proposed survey party organization, including types of personnel, timing of personnel assignments and regional facilities necessary to provide technical supervision of survey specialists. (Indicate also types and extent of technical assistance desired from Washington).
- (f) Proposed location of party headquarters.
- (g) Estimate of completion dates and costs (1) for conducting basic investigations, and (2) for preparation and evaluation of remedial measures. (In connection with travel expense items, indicate expected rates of per diem and policy to be followed in such payments. Also indicate car and other equipment needs.)

This survey work outline should be prepared by a small group of experienced men from the three Bureaus in collaboration with Working Committee members. On completion, the outline must be submitted to Washington for approval prior to the initiation of subsequent survey activities.

2. Basic Investigations.

After approval of the survey work outline all available data pertinent to the survey will be analyzed and steps taken to gather additional data necessary (1) to establish definitely the significance and scope of the flood problem with particular reference to its relation to watershed conditions as a whole and to the more critical flood and silt source areas, and (2) to provide a better basis for the preparation and evaluation of a remedial program, assuming that the above relation is definitely established.

It will be necessary to submit the survey work outline before authority will be given to conduct the basic investigation phase of the survey. It is expected, therefore, that the plans will be submitted at the earliest possible date convenient to the field. The time required to complete these basic investigations will vary from watershed to watershed, depending upon such factors as the amount of available data, conditions within the watershed, seasonal variations, etc.

Generally, the types of investigations involved in the analysis and collection of basic data will consist of the following: (These activities need not be undertaken in the order listed.)

a. Broad classification of watershed based on soil, geology, erosion, cover and related conditions. Purpose will be to facilitate work under the following sections and also to furnish a basis for location of such sample areas as may need study in the final phases of the survey.

b. Review of available data on flood damages; and completion of collection and analysis of damage data to provide basis for estimating future damages. It is recognized that the statements relative to flood damages in the preliminary examination report are made on a tentative basis. Flood damages may be large but the amounts of recoverable damages not definitely known, therefore, a careful review will be necessary to plan the additional flood damage and flood control benefit appraisal work required. Supplementary information gathered during the initial part of the survey may possibly indicate that the damages are not of sufficient magnitude to warrant any further survey work. If this is found to be the case, the survey group may recommend that the survey be carried no further and render a negative report.

c. Study of existing rainfall data within the watershed and on comparable watersheds; installation of additional gages, and collection and analysis of additional data where necessary. (See item (d), page 2, and also Committee Memorandum #40.)

d. Assembly of data on type storms, including study of notable storms both within the watershed boundaries and within neighboring regions of comparable rainfall habits and patterns, and estimated maximum storms corresponding to various time intervals up to the "time of concentration" of run-off from that watershed; also for prolonged general storm conditions.

e. Study of existing streamflow data, official and unofficial, from within and from comparable watersheds; installation of gages, and collection and analysis of additional streamflow data where necessary. (See item (d), page 2, and also Committee Memorandum #40.)

f. Sufficient determination of infiltration rates by broad cover and soil classes to indicate significant differences and, if such are found to exist, to provide a basis for subsequent, more detailed studies as part of the full survey program.

g. Sedimentation studies including analysis of pertinent data from comparable watersheds, to determine extent of this type of damage to stream channels and harbors, flood plains, and existing or proposed reservoirs, irrigation works, drainage ditches; and investigations including suspended load studies to determine sources of sediment.

h. Study of existing run-off and soil loss data from various sources applicable to the watershed, which might be used as a basis for evaluating the effectiveness of any program which might subsequently be proposed.

i. Study of existing programs on comparable physical areas which might have a bearing on run-off and waterflow retardation and soil erosion prevention to determine their applicability to the watershed under survey.

j. Review of pertinent economic studies available in the watershed or comparable areas, such as type of farming, land utilization, and other economic studies which would aid in the appraisal of flood damages, flood control benefits, and the evaluation of existing and proposed watershed control programs.

3. Formulation and Evaluation of Remedial Program.

Analysis of the findings under Items a to j above should indicate definitely whether a remedial program is technically feasible. If such a program is not found to be feasible, the survey should stop at this point and a negative report should be submitted.

If a remedial program is feasible, however, such revisions should be made in the survey work outline as are necessary to guide the formulation and evaluation of a remedial program. Any changes in previous cost estimates should also be shown at this time. Copies of the work outline including a brief summary of the findings which would justify the continuation of the survey should be submitted to Washington for review and information. Pending such review, however, the field may proceed with the formulation and evaluation of the remedial program.

In financing new surveys the Flood Control Coordinating Committee will make allocations sufficient to permit the preparation of the survey work outline. It should be noted, however, that basic investigations are not to be initiated until approval of the work outline is received. Exceptions to this arrangement will be indicated in notices of allotments to be sent you. Subsequent allocations will be made for completion of the surveys as needed and justified.

FLOOD CONTROL COORDINATING COMMITTEE

By Arthur C. Ringland
Arthur C. Ringland, Chairman.